



RUDD CENTER
FOR FOOD POLICY
& OBESITY
Yale University

Rudd Center for Food Policy and Obesity
Yale University

309 EDWARDS STREET BOX 208369 NEW HAVEN, CT 06520-8369
(203) 432-6700 PHONE
(203) 432-9674 FAX

February 23, 2010

Julius Genachowski, Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

RE: Empowering Parents and Protecting Children in an Evolving Media Landscape, MB Docket
FCC 09-94

Dear Chairman Genachowski and Commissioners,

Please accept these comments in response to the Federal Communications Commission Notice of Inquiry (MB Docket No. 09-194). The following presents empirical evidence of the risks from young people's exposure to food marketing and the difficulty of protecting them from those risks. We provide references that we consider to be important contributors to the knowledge in this field.

Numerous studies document the poor nutritional quality of the majority of foods marketed to children and adolescents. For example, a comprehensive analysis of television food advertisements in 2004 shows that 98% of those seen by children and 89% of those seen by adolescents promote products high in fat, sugar and/or sodium.¹ Similarly, other forms of child-targeted marketing also promote primarily calorie-dense low-nutrient foods, including company-sponsored advergames, websites,^{2,3} magazines⁴ and child features on product packaging.^{5,6} To date, fewer published studies have documented newer forms of food marketing, including internet marketing, product placements, social and viral media, and mobile marketing. However, food companies use newer forms disproportionately to reach adolescents,⁷ and their use is growing relative to traditional media.⁸ In spite of food industry pledges to improve food marketing to children through the Children's Food and Beverage Advertising Initiative,⁹ analyses of 2008 television and internet marketing practices demonstrate little substantive change in the volume and nutritional quality of food and beverage products advertised to children.^{10,11}

Food marketing poses significant risks to young people's health

Research has consistently demonstrated effects of food marketing exposure on brand preferences as well as broader long-term risks to child and adolescent health.

Television food advertising increases children's preferences for advertised foods, food choices following exposure and requests to parents for advertised products. Several papers have reviewed the extensive literature on effects of food marketing to children, including

comprehensive reviews by the Institute of Medicine (IOM) and Hastings and colleagues for the UK Food Standards Agency.¹²⁻¹⁵ These reviews reach similar conclusions: television food advertising increases children's desire for the nutrient-poor foods most commonly advertised. The Hastings report also concludes that food advertising increases preferences for unhealthy categories of foods. These reviews also highlighted the need for additional research on causal effects of food marketing to young people in several domains, including effects of non-television marketing, effects on very young children and adolescents, effects on broader nutrition-related beliefs and behaviors, and the effectiveness of marketing to promote healthy foods.

Recent studies demonstrate even broader effects of food marketing on the health of children and adolescents. For example, product placements, advergames and radio advertising also affect children and adolescents.¹⁶⁻¹⁸ Television food advertising increases snack food consumption during and immediately following exposure.¹⁹⁻²¹ Exposure to commercial television is associated with increased overall calorie consumption,²² higher BMI²² and reduced fruit and vegetable consumption five years later.²³ Recent econometric studies also demonstrate that exposure to fast food advertising predicts higher BMI among children²⁴ and exposure to soft drink advertising is associated with increased consumption of sugar-sweetened beverages.²⁵

Educational solutions will not offset these risks

Many proposed solutions to protect young people from unhealthy food marketing are designed to educate them about how marketing attempts to influence and/or the negative consequences of consuming energy-dense low-nutrient foods. These educational solutions include media literacy, nutrition education, marketing of healthy foods and parental mediation. Virtually no research has demonstrated that these solutions reduce the risks associated with food marketing exposure. We cannot definitively determine whether published research is unavailable because researchers have not explored the topic or because proposed approaches have not proven to be effective (as insignificant findings are not typically reported in academic journals). However, existing research provides evidence that educational approaches are not likely to protect young people from the harmful effects of exposure to food marketing.

Media literacy education is based on the inaccurate premise that skepticism about advertising and understanding of persuasive intent will reduce young people's susceptibility to food marketing. Although older children and adolescents express high levels of skepticism about advertising,²⁶ they continue to enjoy and be highly involved consumers of advertising.²⁷⁻²⁹ Accordingly, a few studies provide direct evidence that understanding persuasive intent *does not* reduce the effectiveness of advertising.^{18, 30-32} The advertising media literacy curricula used in elementary schools have not been systematically evaluated;^{33, 34} however, most are based on this unproven assumption that increasing understanding and skepticism about food advertising will reduce its influence.

Media literacy programs to specifically teach children to resist food marketing may be less effective than other health-focused media literacy programs. Although media literacy education can reduce susceptibility to future smoking and alcohol consumption,^{35, 36} one recent study evaluated a program to teach children about the harmful effects of food marketing and found

that children who participated in the intervention exhibited *greater* preferences for the advertised foods presented in a media literacy video.³⁰ To maximize efficacy, media literacy education should occur before unhealthy behaviors are firmly established.³⁷ Unfortunately, children's food preferences develop very early (by age 2 or 3 years) and remain highly stable through childhood.^{38, 39} As children cannot be taught media literacy before they possess the cognitive skills to understand the persuasive intent of advertising (i.e., the age of 7 or 8 years),^{34, 40} media literacy education may be too late to protect children from the risks of exposure to unhealthy food marketing.

There is no evidence that unhealthy diet is caused by a lack of understanding about the difference between healthy and unhealthy food options. Preferences and consumption of healthy versus unhealthy foods are not related to accurate beliefs about the nutrition of either healthy or unhealthy foods in children and adults.^{37, 41, 42} Food choices are determined primarily by perceived taste of both healthy and unhealthy foods.^{37, 43, 44} In addition, governments and schools could not fund enough healthy messaging to offset the more than \$1.6 billion that the food industry spends every year to promote primarily unhealthy foods to children and adolescents.⁷ In fact, ten times that amount of funding would be required to communicate the proper balance of healthy versus unhealthy foods that constitute a healthy diet. Therefore, nutrition education programs designed to teach children about the benefits of healthy eating and the dangers of consuming the types of foods most commonly advertised are also unlikely to counteract the risks of exposure to unhealthy food marketing.

Marketing nutritious foods to children may not increase their desire for healthy foods and could potentially produce the opposite effect. The IOM recommended additional research on the effectiveness of marketing nutritious foods to young people as a potential means to counteract the influence of unhealthy food marketing.¹⁴ Food marketers have expressed the difficulty of doing so because market research shows that children do not respond to marketing messages that promote the health benefits of foods.⁷ Experimental studies also demonstrate an implicit belief among children and adults that healthy foods do not taste as good as unhealthy foods.⁴⁵⁻⁴⁸ Perhaps as a result, there is little evidence that marketing of healthy foods to children has increased as a result of the CFBAI. Instead, it appears that companies have chosen to primarily reformulate existing products to somewhat improve the nutrition quality of the nutrient-poor foods traditionally marketed to children.^{10, 11} Again, the research in this area does not suggest that healthy marketing will significantly offset the risks of exposure to unhealthy marketing and it could have the unintended consequence of reducing children's preferences for foods marketed as healthy.

Parental mediation to teach children critical media viewing skills and healthy eating does not counteract the harmful effects of media exposure. College students with parents who enforced rules about healthy eating when they were younger and who critically discussed the content of advertising and other television messages (i.e., engaged in critical viewing) were more likely to consume fewer unhealthy foods.³⁷ However, the relationship between television viewing and unhealthy diet remained strong after controlling for parental mediation; high levels of parental involvement did not offset the negative relationship found between children's television viewing and unhealthy diet in early adulthood.

Children and adolescents cannot be taught to defend against most food marketing effects

Successfully defending against the influence of food marketing requires four conditions: a) active attention to marketing stimuli and comprehension of their persuasive intent; b) understanding how one is affected by these stimuli and how to effectively resist; c) cognitive maturity to effectively resist, as well as available cognitive resources at the time of exposure; and d) the motivation to resist.⁴⁹ Even when young people understand marketers' intentions and the negative consequences of an unhealthy diet, it is highly unlikely that they can consciously consider and counteract even a small proportion of the hundreds of food marketing messages they encounter every day. In addition, marketers have developed techniques that effectively deactivate skepticism and negative responses to their persuasive messages so that young people will not process advertising information in the thoughtful rational manner required to protect themselves.

Many forms of marketing targeted to young people are designed to persuade “under the radar.” Examples of common marketing techniques that successfully persuade without careful consideration of the messages presented include humorous and emotional advertising, product placements, and advergames.^{50, 51} Therefore, even when children are old enough to understand the persuasive intent of advertising, they are not likely to carefully consider and refute the information presented in these covert forms of marketing.^{49, 52} These marketing techniques are highly effective. A recent analysis of 880 advertising campaigns concludes, “The more emotions dominate over rational messaging, the bigger the business effects. The most effective advertisements of all are those with little or no rational content.”⁵³ In addition, marketers continually identify new and creative strategies to influence indirectly; consumer behavior research demonstrates that individuals must identify and learn how to successfully cope with each new technique.⁵⁴

Marketers utilize techniques that appeal to young people's unique developmental vulnerabilities and effectively reduce their motivation to resist. Marketing to children commonly associates nutrient-poor foods with fun and happiness, a primary motivation for most younger children.^{10, 14} Social and viral marketing and messages that promote products as “cool” and socially desirable appeal to older children and adolescents' strong desire to fit in with their peers and separate from their parents.⁵⁵ Image advertising, celebrity endorsements and sponsorships also encourage product consumption as a means for adolescents to convey a desired image as they actively attempt to establish their own identities.⁵⁶⁻⁵⁸ Although older children and adolescents likely understand the persuasive intent of these communications, their motivation to conform to the social messages they contain is often much stronger than their desire to resist.

Resisting marketing for highly desirable foods requires well-developed self-regulatory skills, which youth do not possess. Food marketing commonly portrays highly desirable images of extremely palatable foods that should only be consumed in small quantities. Resisting these enticing images requires considerable self-regulatory abilities.⁴⁹ The literature on adolescent self-regulation and effects of alcohol and tobacco marketing demonstrates that these skills are not fully developed until a person is in their early 20's.^{59, 60} Even adults often find it difficult to resist these messages at all times.²¹

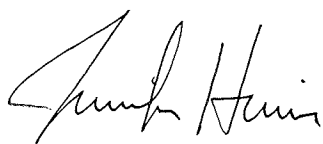
Substantial reductions are needed in young people's exposure to marketing for calorie-dense nutrient-poor foods.

The massive amount of marketing for calorie-dense nutrient-poor foods that young people encounter daily poses significant long-term risks to their health. As food marketing is most often specifically designed to influence without conscious and rational consideration of the messages presented and to take advantage of young people's developmental vulnerabilities, programs designed to educate young people about food marketing and nutrition are not likely to protect them from these risks. In fact, it may be virtually impossible for young people to defend against most common food marketing practices. We propose that the question parents and policymakers should be asking is not, "How can we teach children to defend against food marketing effects?" but, "At what age are we no longer obligated to protect them from the unhealthy influence of food marketing?"


Government regulation of food marketing to children and adolescents will likely be necessary. Industry self-regulation in its current form has done little to reduce young people's exposure to marketing for foods of poor nutritional quality. Numerous omissions and loopholes in CFBAI pledges may provide significantly more public relations benefit to the food industry than real health benefits to young people.⁶¹⁻⁶⁴ Analysis of other industries that have attempted self-regulation demonstrates that successful implementation requires governance by multiple stakeholders, transparency in creating standards, and external objective evaluation of impact;⁶⁴ none of these conditions exist in current food marketing self regulation initiatives. We cannot wait while the industry continues to implement minor improvements in current marketing pledges; the risks to young people's health are too critical. To the full extent of its power, the FCC should regulate food marketing to children and adolescents, and Congress should enhance the FCC's power accordingly.

Thank you for the opportunity to submit these comments.

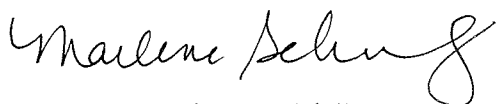
Sincerely,



Jennifer L. Harris, Ph.D., M.B.A.
Director of Marketing Initiatives



Kelly D. Brownell, Ph.D.
Co-Founder and Director



Marlene B. Schwartz, Ph.D.
Deputy Director



Jennifer L. Pomeranz, J.D., M.P.H.
Director of Legal Initiatives

References

1. Powell LM, Szczpka G, Chaloupka FJ, Braunschweig CL. (2007). Nutritional content of television food advertisements seen by children and adolescents. *Pediatrics*, 120, 576-83.
2. Moore ES, Rideout VJ. (2007). The online marketing of food to children: Is it just fun and games? *Journal of Public Policy and Marketing*, 26(2), 202-20.
3. Montgomery KC, Chester J. (2009). Interactive food and beverage marketing: Targeting adolescents in the digital age. *Journal of Adolescent Health*, 45, S18-S29.
4. Cowburn G, Boxer A. (2007). Magazines for children and young people and the links to Internet food marketing: A review of the extent and type of food advertising. *Public Health Nutrition*, 10(10), 1024-31.
5. Harris JL, Schwartz MB, Brownell KD (2010). Marketing foods to children and youth: Licensed characters and other promotions on packaged foods in the supermarket. *Public Health Nutrition*, 13(3), 409-417.
6. Elliott C. (2008). Assessing "fun foods": Nutritional content and analysis of supermarket foods targeted at children. *Obesity Reviews*, 9, 368-77.
7. Federal Trade Commission (2008). *Marketing Food to Children and Adolescents. A Review of Industry Expenditures, Activities, and Self-Regulation*. Available at www.ftc.gov.
8. Ecoconsultancy (2010). Marketers to increase digital budgets by 17% as online channels gain more ground. Press release 2010 February 3.
9. Peeler CL, Kolish ED, Enright M. (2009). *The Children's Food & Beverage Advertising Initiative in action: A report on compliance and implementation during 2008*. Available at www.bbb.org/us/storage/16/documents/CFBAI/ChildrenF&BInit_Sept21.pdf
10. Harris JL, Schwartz MB, Brownell KD, et al. (2009). Cereal FACTS: Evaluating the nutrition quality and marketing of children's cereals. The Rudd Center for Food Policy. Available at www.cerealfacts.org.
11. Kunkel D, McKinley C, Wright P. (2009). The impact of industry self-regulation on the nutritional quality of foods advertised on television to children. Children Now. Available at www.childrennow.org/uploads/documents/adstudy_2009.pdf
12. Harris JL, Pomeranz JL, Lobstein T, Brownell KD. (2009). A crisis in the marketplace: How food marketing contributes to childhood obesity and what can be done. *Annual Review of Public Health*, 30, 211-25.
13. Hastings G, Stead M, McDermott L, Forsyth A. et al. (2003). Review of research on the effects of food promotion to children. Glasgow, UK: Center for Social Marketing, University of Strathclyde. Available at www.foodstandards.gov.uk/multimedia/pdfs/foodpromotiontochildren1.pdf
14. Institute of Medicine (2006). National Academy of Sciences, Committee on Food Marketing and the Diets of Children and Youth. McGinnis JM, Gootman J, Kraak VI, eds. *Food marketing to children and youth: Threat or opportunity?* Washington, DC: National Academies Press.
15. Livingstone S. (2005). Assessing the research base for the policy debate over the effects of food advertising to children. *International Journal of Advertising*, 24(3), 273-96.
16. Auty S, Lewis C. (2004). Exploring children's choice: The reminder effect of product placement. *Psychology and Marketing*, 21, 697-713.
17. Bao Y, Shao AT. (2002). Nonconformity advertising to teens. *Journal of Advertising Research*, 42(3), 56-65.

18. Mallinckrodt V, Mizerski D. (2007). The effects of playing an advergame on young children's perceptions, preferences, and request. *Journal of Advertising*, 36, 87-100.
19. Halford JCG, Gillespie J, Brown V, Pontin EE, Dovey TM. (2004). Effect of television advertisements for foods on food consumption in children. *Appetite*, 42, 221-5.
20. Halford JCG, Boyland MJ, Hughes G, Oliveira LP, Dovey TM. (2007). Beyond-brand effect of television (TV) food advertisement/commercials on caloric intake and food choice of 5-7-year-old children. *Appetite*, 49, 263-7.
21. Harris JL, Bargh JA, Brownell K. (2009). The direct effects of television food advertising on eating behavior. *Health Psychology*, 28(4), 404-13.
22. Epstein LH, Roemmich JN, Robinson JL, et al. (2008). A randomized trial of the effects of reducing television viewing and computer use on body mass index in young children. *Archives of Pediatric and Adolescent Medicine*, 162, 239-45.
23. Barr-Anderson DJ, Larson NI, Nelson MC, Neumark-Sztainer D, Story M. (2009). Does television viewing predict dietary intake five years later in high school students and young adults? *International Journal of Behavioral Nutrition and Physical Activity*, 6:7.
24. Chou S-Y, Rashad I, Grossman M. (2008). Fast-food restaurant advertising on television and its influence on childhood obesity. *Journal of Law and Economics*, 51, 599-618.
25. Andreyeva T, Kelly, IR (2009). Presentation at FTC Forum: Sizing Up Food Marketing and Childhood Obesity. In: Federal Trade Commission. 15 December 2009, Washington, DC.
26. Boush DM, Friestad M, Rose GM. (1994). Adolescent skepticism toward TV advertising and knowledge of advertising tactics. *Journal of Consumer Research*, 21, 165-75.
27. Dubow JS. (1995). Advertising recognition and recall by age - including teens. *Journal of Advertising Research*, Sept/Oct, 55-60.
28. Moore ES, Lutz RL. (2000). Children, advertising and product experiences: A multimethod inquiry. *Journal of Consumer Research*, 27, 31-48.
29. Ritson M, Elliott R. (1999). The social uses of advertising: An ethnographic study of adolescents advertising audience. *Journal of Consumer Research*, 26, 260-77.
30. Chernin A. (2007). The relationship between children's knowledge of persuasive intent and persuasion: The case of televised food marketing. Dissertation: University of Pennsylvania.
31. Chernin A. (2008). The effects of food marketing on children's preference: Testing the moderating roles of age and gender. *Annals of the Academy of Political Social Science*, 615, 102-18.
32. Livingstone S, Helsper EJ. (2006). Does advertising literacy mediate the effects of advertising on children? A critical examination of two linked research literatures in relation to obesity and food choice. *Journal of Communication*, 56, 560-84.
33. Brown JA. (2001). Media literacy and critical television viewing in education. In: Singer DG, Singer JL, eds. *Handbook of Children and the Media*, pp. 681-97. Thousand Oaks, CA: Sage Publications.
34. Kunkel D, Wilcox BL, Cantor J, Palmer E, Linn S, Dowrick P. (2004). Report of the APA task force on advertising and children. Available at www.apa.org/releases/childrenads.pdf
35. Austin EW, Johnson KK. (1007). Effects of general and media-specific media literacy training on children's decision making about alcohol. *Journal of Health Communication*, 2, 17-42.
36. Primack BA, Gold MA, Land SR, Fine MJ. (2006). Association of cigarette smoking and media literacy about smoking among adolescents. *Journal of Adolescent Health*, 39, 465-72.
37. Harris JL, Bargh JA. (2009). Television viewing and unhealthy diet: Implications for children and media interventions. *Health Communication*, 24, 660-73.

38. Birch LL. (1999). Development of food preferences. *Annual Review of Nutrition*, 19, 41-62.
39. Skinner JD, Carruth BR, Bounds W, Ziegler PJ. (2002). Children's food preferences: A longitudinal analysis. *Journal of American Dietetic Association*, 102, 1638-47.
40. John DR. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research. *Journal of Consumer Research*, 26, 183-213.
41. Glanz K, Basil M, Maibach E, Goldberg J, Snyder D. (1998). Why Americans eat what they do: Taste, nutrition, cost, convenience and weight control concerns as influences on food consumption. *Journal of American Dietetic Association*, 98, 1118-26.
42. Neumark-Sztainer D, Wall M, Perry C, Story M. (2003). Correlates of fruit and vegetable intake among adolescents: Findings from Project EAT. *Preventive Medicine*, 37, 198-208.
43. French SA, Story M, Hannan P, et al. (1999). Cognitive and demographic correlates of low-fat vending snack choices among adolescents and adults. *Journal of the American Dietetic Association*, 99, 471-5.
44. Zandstra EH, de Graaf C, van Staveren W. (2001). Influence of health and taste attitudes on consumption of low- and high-fat foods. *Food Quality and Preference*, 12, 75-82.
45. Baranowski T, Domel S, Gould R, Baranowski J, Leonard S, et al. (1993). Increasing fruit and vegetable consumption among 4th and 5th grade students: Results from focus groups using reciprocal determinism. *Journal of Nutrition Education*, 25, 114-20.
46. Raghunathan R, Naylor RW, Hoyer WD. (2006). The unhealthy = tasty intuition and its effects on taste inferences, enjoyment, and choice of food products. *Journal of Marketing*, 70, 170-84.
47. Wansink B, Park SB, Sonka S, Morganosky M. (2000). How soy labeling influences preferences and taste. *International Food and Agribusiness Management Review*, 3, 85-94.
48. Wardle J, Huon G. (2000). An experimental investigation of the influence of health information on children's taste preferences. *Health Education Research*, 15, 39-44.
49. Harris JL, Brownell KD, Bargh JA. (2009). The food marketing defense model: Integrating psychological research to protect youth and inform public policy. *Social Issues and Policy Review*, 3, 211-71.
50. Petty RD, Andrews JC. (2008). Covert marketing unmasked: A legal and regulatory guide for practices that mask marketing messages. *Journal of Public Policy and Marketing*, 27(1), 7-18.
51. Sprott DE. (2008). The policy, consumer, and ethical dimensions of covert marketing: An introduction to the special section. *Journal of Public Policy and Marketing*, 27(1), 4-6.
52. Nairn A. (2009). Changing the rules of the game: Implicit persuasion and interactive children's marketing. Paper presented at The Second NPLAN/BMSG Meeting on Digital Media and Marketing to Children. Berkeley, CA; June 2009. Available at www.digitalads.org
53. Binet L, Field P. (2009). Empirical generalizations about advertising campaign success. *Journal of Advertising Research*, 49(2), 130-3.
54. Friestad M, Wright P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21, 1-31.
55. Valkenburg PM, Cantor J. (2001). The development of a child into a consumer. *Applied Developmental Psychology*, 22, 61-72.
56. Chaplin LN, John DR. (2005). The development of self-brand connections in children and adolescents. *Journal of Consumer Research*, 31, 119-29.
57. Snyder M, DeBono KG. (1985). Appeals to image and claims about quality: Understanding the psychology of advertising. *Journal of Personality and Social Psychology*, 49, 586-7.

58. Russell CA, Norman AT, Heckler SE. (2004). The consumption of television programming: Development and validation of the connectedness scale. *Journal of Consumer Research*, 31, 150-61.
59. Pechmann C, Levine L, Loughlin S, Leslie F. (2005). Impulsive and self-conscious: Adolescents' vulnerability to advertising and promotion. *Journal of Public Policy and Marketing*, 24(2), 202-21.
60. Leslie FM, Levine LJ, Loughlin SE, Pechmann C. (2009). Adolescents' psychological and neurobiological development: Implications for digital marketing. Paper presented at The Second NPLAN/BMSG Meeting on Digital Media and Marketing to Children. Berkeley, CA; June 2009. Available at www.digitalads.org.
61. Brownell KD, Warner KE. (2009). The perils of ignoring history. Big tobacco played dirty and millions died. How similar is big food? *The Milbank Quarterly*, 87, 259-294.
62. Hawkes D. (2007). Regulating food marketing to young people worldwide: Trends and policy drivers. *American Journal of Public Health*, 97, 1962-1973.
63. Wilde P. (2009). Self-regulation and the response to concerns about food and beverage marketing to children in the United States. *Nutrition Reviews*, 67, 155-66.
64. Sharma LL, Teret SP, Brownell KD. (2010). The food industry and self-regulation: Standards to promote success and to avoid public health failures. *American Journal of Public Health*, In press.